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SELECT COMMITTEE TO INVESTIGATE PRICE MANIPULATION
OF THE WHOLESALE ENERGY MARKET
OF THE SENATE OF THE STATE OF CALIFORNIA

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MCCULLOUGH RESEARCH/ROBERT MCCULLOUGH

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Wednesday, June 5, 2002 - 9:49 a.m.

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Deposition Officer:
Dennis G. Peyton, C. S. R. No. 2934

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Taken in the offices of:
California State Capitol
Room 2040
Sacramento, California

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MEMBERS PRESENT

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SENATOR JOSEPH DUNN, Chair

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SENATOR WILLIAM MORROW, Vice Chair

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SENATOR DEBRA BOWEN

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SENATOR BYRON SHER

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MEMBERS ABSENT

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SENATOR MAURICE JOHANNSEN

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SENATOR SHEILA KUEHL

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SENATOR MARTHA ESCUTIA

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SENATOR WES CHESBRO

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STAFF PRESENT

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JEFF YAZEL

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ALEXANDRA D. MONTGOMERY

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CHRISTIAN SCHREIBER

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RONDA PASCHAL

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PETER FISHER

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DAVID J. DURAN

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SCOTT J. CHAVEZ

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CHAIRMAN DUNN: Okay. Why don't we begin. I
want to first welcome everybody. I want to give
everyone a few updates on some ongoing issues very
quickly, since we haven't been together for a few weeks,
and then we'll start right in with the first major issue
concerning Perot Systems.

7 And I welcome Senator Bowen and Senator Sher.
8 I don't know if either one has any opening comments
9 they'd like the make. No, no. So let me get right into
10 some miscellaneous issues for updating purposes.

11 With respect to our ongoing discussions with
12 ISO concerning the released -- the second recorded
13 transcript that we released several weeks ago, or about
14 two weeks ago. We are still in ongoing communications
15 with ISO, and as most of you are aware, they issued an
16 interim report a short time ago concerning their
17 findings regarding that second published recorded phone
18 conversation. We have now responded to them by letter
19 with respect to that interim report. That letter can be
20 obtained from our office after the hearing today.

21 We will continue our discussions with ISO as we
22 try to resolve our differences concerning what occurred
23 in that recorded conversation. For those who are
24 interested in and are following that, we have not
25 altered our position in any respect, despite the interim

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1 report that we received from ISO.

2 Moving on to the next housekeeping matter, and
3 that is the status of the privilege logs. As some of
4 you are aware, we demanded that the privilege logs that
5 had been promised to us since last June, that they be
6 delivered to the Committee by last Friday. We have
7 gotten a variety of different responses, some good, some
8 not so good.

9 For example, from Duke we have received a
10 rather large privilege log consisting of some 40 pages.
11 Dynegy claims they have no documents that they are
12 withholding from the Priority 16. To be perfectly
13 frank, I question that, given the fact that Duke has a
14 40-page privilege log relating to the Priority 16 and
15 Dynegy claims it doesn't.

16 Williams is still working on their privilege
17 log. Enron, as most of you are aware, has waived most
18 of their claims of privilege and I believe are asserting
19 privilege over one -- only one box of documents at this
20 time, and Reliant has asserted a privilege over exactly
21 three documents relating to the Priority 16.

22 We will continue with our discussions and
23 update everybody further with regard to the ongoing
24 struggle over the privilege logs at our hearing next
25 week.

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1 With respect to the interrogatory responses,
2 and I refer to both the interrogatory responses to FERC
3 and to the interrogatories from this Committee to the
4 market participants following the release of the Enron
5 documents that laid out the Deathstar and Fat Boy and et
6 cetera, strategies.

7 We have now received responses to -- from all
8 the market participants to our interrogatories. We've
9 also received copies of all of their responses to the
10 FERC's -- to FERC's questions. We are in the process of
11 reviewing those.

12 I will tell you, at least from the Chair's
13 perspective, the responses that we received from some of
14 the market participants are disturbing, but we want to
15 analyze the full meaning of their responses. No
16 surprise to anyone, it appears the lawyers were having a
17 heyday with the responses.

18 We're trying to sort out exactly whether other
19 market participants engaged in similar conduct as

20 outlined in the Enron memos. As a generic response,
21 though, some have admitted to similar strategies, others
22 were implicated in other participants' responses, but we
23 will continue analyzing those. In our hearing next
24 week, we may discuss those publicly, but we're not going
25 to do that today.

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1 When we originally announced this hearing, we
2 were going to have a presentation by our information
3 technology forensic expert concerning his findings in
4 the electronic production by Enron. We have delayed
5 that until next week, given the Perot System issue that
6 arose in the past 48 hours, and so that presentation
7 will be made next week.

8 And, finally, we are continuing our review of
9 documents. Enron has continued to produce a substantial
10 amount of additional documents, including over 200 boxes
11 last week that we are trying to weed through as quickly
12 as possible.

13 And, again, we will continue to keep everybody
14 updated. Let me, unless there's any comments or
15 questions, and welcome Senator Morrow, welcome Senator
16 Peace. Let me, if there no other questions or comments,
17 let me go right into the first of our main issues.

18 I'm going to spend a few minutes walking
19 everyone through what gave rise to this issue. I will
20 then call Robert McCullough to come forward, who has had
21 now an opportunity to review the Perot System documents,
22 and ask him to give us his observation on his review and
23 certainly open it up at any time to questions and
24 comments from the Committee members. But let me give
25 you the background and, again, copies are coming,

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1 everyone. We'll try to get them here as quickly as
2 possible.

3 MS. MONTGOMERY: They will be here in just a
4 minute.

5 CHAIRMAN DUNN: Okay. We have been promised in
6 just a few minutes they will be here.

7 The background: About two days ago the
8 Committee discovered in the Reliant document production
9 some documents from Perot Systems. I want to thank
10 Reliant for their willingness to act quickly in
11 addressing the claim of confidentiality over those
12 documents. While initially they asserted
13 confidentiality, within about 24 hours we resolved their
14 dispute and Reliant said they do not assert
15 confidentiality over these documents. That's why we are
16 free to disclose them. So I do want to thank Reliant
17 publicly for acting quickly in that regard.

18 Let me give everyone the background to the
19 document itself. When the ISO and PX were created,
20 Perot Systems was retained at that time for much of the
21 information technology work. To put it in lay terms, to
22 set up the computer systems for how the PX and the ISO
23 would operate. If you look at -- and some of this is
24 just publicly available on certain Web sites, and I'll
25 identify them. If you look at the California ISO Web

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1 site you will find a point where they talked about who
2 helped setting up the markets. They talked about
3 scheduling infrastructure setups, scheduling
4 applications, the business systems, et cetera.

5 And the contractor for many of those tasks in
6 the setup of ISO and PX was something called The

Alliance. If you look at the footnotes to that Web site of ISO, you will find The Alliance consists of the following companies.

And pardon me if I pronounce this first one incorrectly. Asea, that's A-s-e-a, Brown Boveri, B-o-v-e-r-i, Perot Systems, and Ernst & Young. Those are the three companies that make up The Alliance which were responsible for the establishment of many of the computer systems early on.

I suspect probably everyone in this room has at least a passing familiarity with Perot Systems, given the name of the individual and obviously his former involvement in politics, but we decided when we came across this document we wanted a little bit better understanding about Perot Systems.

And, again, they have, no surprise, their own Web site and some of this information was taken directly from there. Very quickly.

"Perot Systems is a worldwide provider of

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information technology services and business solutions to a broad range of clients. We serve clients by delivering services and solutions focused on each client's specific needs, with particular emphasis on developing and integrating information systems, operating and improving technology business and business processes, and helping clients transform their business.

"Perot System helps large multinational companies leverage their traditional strengths and technologies to take full advantage of e-business by capitalizing on the growth and productivity that can be achieved by integrating many companies into common marketplaces."

One other phrase here, "We focus our core business integration, systems integration application development, and infrastructure services to enable clients to accelerate growth, streamline operations, and create new levels of customer values."

If you turn to the next page on that Web site you will find the category of values. And it says simply, referring to Perot Systems, "Our company is built around tightly-fixed core values which are at the heart of who we are and what we do, and a climate is fostered to support and instill them in every aspect of the organization. All associates must operate in an

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honest and ethical manner with consistently high standards of integrity in all relationships with clients, governments, the general public, and each other."

When you look at its leadership, its chairman of the board is, of course, Ross Perot, Senior, 1992 elections. President and CEO is Ross Perot, Junior.

With respect to energy, specifically relating to Perot Systems, it says on that Web site, "Our team of energy professionals are at the forefront of the deregulating electricity and gas markets. For almost a decade we have helped companies navigate change and response to new market dynamics," and they go on to explain in great detail their involvement in the deregulation of energy markets throughout the United States.

I want to jump forward to a press release that was issued in March, excuse me, on March 9th, 2000 by Perot Systems, and this press release will be part of

20 the packet that's coming here in a minute or two.
 21 Released out of Dallas, which is where Perot Systems is
 22 headquartered, March 9, 2000, which you don't have it.
 23 It's not that long and I want to read it so everybody
 24 has knowledge of what it says.

25 "Perot Systems Corporation announced today that
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1 it has signed a \$35 million information technology
 2 services agreement with the California Power Exchange
 3 Corporation, PX, a premier provider of electric trading
 4 services." Let me stop here. This was over and above
 5 the original contract with the PX when the PX and ISO
 6 were established.

7 "In 1997, Perot Systems led the development and
 8 implementation of California's critical new business
 9 systems required to independently operate and service
 10 its electric markets under market deregulation. These
 11 systems were the first in the United States designed to
 12 allow the California ISO to effectively schedule and
 13 manage the use of power grid to ensure reliable service
 14 to California.

15 "Following the creation of the Cal PX, the
 16 first of its kind exchange for trading electricity in
 17 the United States, Perot systems began working with Cal
 18 PX in creating and stabilizing its operations in working
 19 jointly to create new products and services for its" new
 20 markets -- "for its markets. The California market
 21 represents approximately 10 percent of the United
 22 States' total energy sales.

23 "Under the new agreement, Perot Systems will
 24 provide business consulting and application development
 25 services to Cal PX for the creation of new products,"

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 1 and, et cetera.

2 This is a quote from Mr. Perot, Cal PX
 3 addresses the critical needs of the evolving electric
 4 power industry. "Perot systems will work with PX to
 5 expand and improve their services and enabling them to
 6 accomplish their vision of capturing the opportunities
 7 arising from deregulation while delivering benefits to
 8 the California marketplace."

9 And last paragraph, Cal PX CEO George Sladoge
 10 said, quote, "Perot Systems has played a key role in the
 11 startup and operation of Cal-PX. They hold a proven
 12 track record in developing and implementing innovative
 13 technological solutions well-suited to enabling the
 14 growth of our business. Their associates possess a keen
 15 understanding of the energy marketplace and provide high
 16 quality strategic services that will help secure our
 17 long-term goals," end quote. That's the end of the
 18 press release dated March 9th, 2000.

19 Not here yet. It's coming. I want to just
 20 quickly touch upon the document that we're waiting for,
 21 so that everybody can have it. This is a document, as I
 22 mentioned before, that we discovered in Reliant's
 23 production. Reliant has advised us that the document,
 24 which has been -- collection of about 40 some-odd pages
 25 of a Power Point presentation. It's a presentation that

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 1 was made by Perot Systems to Reliant and Reliant has
 2 advised us that it was made to other market
 3 participants. We are trying to secure the names of
 4 those other market participants as we speak.

5 The Power Point presentation documents you have
 6 before you are undated, or will have before you are

undated. However, as you will hear from Mr. McCullough, due to certain language in the Power Point presentation, we can target the date to be somewhere around 1999.

We have had discussions, Chris Schreiber from our staff has, directly with representatives from Perot Systems, who claim that, A, it was made in 1998 or the documents are from 1998. And they deny that it was -- that they made the presentation to any market participant, so we already have a disagreement between those that appear to be involved in this presentation.

I should comment for everybody as well that I did receive a call this morning directly from Mr. Perot, and I will share the contents of that conversation in a moment.

What you will find in the 44-page Power Point presentation is, simply put, a seminar on how the market participants can game the PX and the ISO, can game the very systems that Perot Systems established at the creation of the PX and the ISO.

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Until we have them in, I won't go through and read some of them. You will see them on your own as you walk through it, but it explains the theoretical basis of the PX and ISO market. It explains certain, to use the words of Perot Systems, holes in those markets.

It also shows examples of how you can carry out the gaming of those markets and, in fact, at some points in the documents you will see that they referred to the market participants as gamers.

Yes, Senator Peace.

SENATOR PEACE: Perhaps it would be appropriate, since we're waiting for the document, I'd like to make some comments and kind of put this in historical perspective, and the timing I think is important.

When you go through the document, and no doubt the defense of the participants is going to be well, yeah, this is a market and market uses gaming theory and that's all this was about.

What's missing in that analysis, and everyone knew going into opening up these markets, as the document indicates, there will be holes identified and then the ISO and the PX will figure out how to close those holes, and then they be able to create new holes.

Well, the overall arching premise of the system

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was rooted in a wholesale market that was regulated by the Federal Energy Regulatory Commission. And a federal law that said that any wholesale price generated out of the market had to be just and reasonable.

And that's why it's so important to continue to recognize that the ISO and the PX were operating under a concept created by the federal government, created by FERC, and indeed a governance structure dictated by FERC.

In AB 1890, the State of California attempted to have that governance structure to be economically independent from market participants, precisely because we were concerned about the result of what would occur in terms of governance of the proposal that had been already agreed to between the PUC and FERC and was going to be filed -- had already been filed at FERC.

There was only one market change. If you will recall, you have seen the letter from Governor Wilson at the time which he commits to the then chair of FERC,

20 Betsy Moeller, that there will be no changes in the
 21 wholesale design in the market structure as a result of
 22 the statute that was moving through the legislature,
 23 1890. This is a 9th December, I believe, letter from
 24 Wilson to Betsy Moeller in which he makes this
 25 commitment.

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1 Ultimately, the governor comprised on that
 2 commitment in -- in one way and one way only, and that
 3 was the creation of the oversight board, a five-person
 4 independent oversight board. Mr. Sher will recall a
 5 great deal of consternation over this and the market
 6 participants objected to it.

7 Privately FERC representatives objected to it,
 8 and ultimately FERC wouldn't approve it, and so after
 9 1890, after the filing, FERC threw out, refused to allow
 10 for this oversight committee to have any power. We then
 11 ran a bill the next year, I believe it was SB 960,
 12 conforming to the FERC dictates.

13 That took the authority away from the oversight
 14 board to overrule the governing board of the ISO and the
 15 governing board of the PX. The reason why it becomes
 16 incredibly important is both the selection of vendors,
 17 the relationship between vendors, the selection of
 18 lawyers, the identification of the holes.

19 And you will recall that I had submitted to --
 20 to this Committee, and I believe you have in your
 21 possession some documents in which the Market
 22 Surveillance Committees and the Power Exchange actually
 23 identified some gaming that was going on, originally
 24 proposed in their report that ultimately was relied upon
 25 by FERC in some of their decisions not to move forward,

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1 that that gaming could be connected to the results in
 2 the summer of 2000.

3 The old -- the board, the full board of the PX
 4 overruled Market Surveillance Committee, rewrote the
 5 conclusions of that report and the Committee has in
 6 possession both the original draft that never saw the
 7 public, that summary of recommendations as well as the
 8 doctored or, I'm sorry, the altered report that was
 9 ultimately put forward.

10 The reason why that is critical is that you are
 11 going -- as more and more time moves on, we may recall,
 12 and Mr. Morrow, you may recall some consternation
 13 earlier on in this Committee when I was expressing some
 14 anxiousness over our failure to focus on Enron and stay
 15 focused on Enron.

16 It is not surprising at all that still another
 17 Texas company comes to the forefront here. It is not
 18 surprising that the -- the focus of the unraveling in
 19 terms of if you look at the stock prices where the most
 20 sophisticated watchers of companies are making
 21 judgments.

22 Who are the companies who are now having stiff
 23 difficulties with their stock price? It is not
 24 surprising, just in the context of familiarity,
 25 relationships, physical proximity. This was at its core

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1 a Texas enterprise, and a Texas enterprise of companies
 2 operating collusively and sharing information.

3 And we also find when you -- we begin to look
 4 more closely at the interrelationships between FERC
 5 personnel and former FERC personnel up to including
 6 Mr. Lay's former role as the chief adviser to the former

7 then Federal Power Administration, now what we call
8 FERC, had a pattern of revolving-door participation at
9 FERC and in these companies.

10 And I certainly want to commend the work of the
11 lawyers and you, Mr. Dunn, in terms of continuing to
12 unearth these documents, but there will no doubt be an
13 effort to spin, just as some of the marketing documents
14 you have discovered in your -- in your things show that
15 independent energy producers in some of these companies
16 work very hard to manipulate the media, they will
17 continue to attempt to manipulate the media and they
18 will attempt to focus this in the context just as they
19 have responded with respect to some of your ISO
20 revelations, as though, okay, here's things going on
21 that went on in California.

22 It needs to be made absolutely clear that these
23 were not state institutions, these were nonprofit
24 corporations created by the state at the behest of the
25 federal agency, working, I believe, outside the bounds

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1 and beyond the bounds of even what Congress had allowed
2 them to do statutorily, which ultimately is going to be
3 the root of, I believe, our legal challenges.

4 CHAIRMAN DUNN: Can I interrupt for one second,
5 Senator Peace. Ronda is actually -- they are outside
6 the hearing room. Don't worry, you don't have to get up
7 and go get it, we're going to bring them in. They're
8 going to be handed out now.

9 Sorry, Senator Peace.

10 SENATOR PEACE: With an incredible amount of
11 interaction between the folks in the energy industry in
12 general, and in particular those based in Texas who
13 basically invented the -- the expropriation of the sort
14 of derivative trading strategies, generic option trading
15 strategies, the long term capital kind of exercises,
16 neoclassical economic theory, whatever you want to refer
17 to it as, the Enron model of new energy world.

18 In most of these companies, trading floors
19 actually became spinoffs of the Enron template and so
20 the -- as you look at the companies that are
21 experiencing financial difficulties, as the markets
22 decrease their level of confidence in their accounting
23 strategies and a variety of others, you are going to see
24 a continuity of interrelationship in terms of individual
25 persons, colleague professors, very well-known folks in

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1 and out of the energy field who have expertise in gaming
2 theory, as well as companies such as Mr. Perot's who
3 provide the technical capacity to set the games up.

4 What is incredibly important through this
5 process as we move forward is to not lose track of the
6 fact that the game, and to put the most benign, if -- I
7 could take this work product and accept the most benign
8 explanation of it, that this was just explaining how --
9 how the opportunities, and you want the people to
10 understand how their system works. And everybody goes
11 in and they do the game and that's the way, in theory,
12 the consumer gets the best result, because the game
13 should produce the most efficient price. All of that
14 works as long as the Federal Energy Regulatory
15 Commission does its job and makes and -- and acts to
16 assure that just and reasonable prices occurred.

17 As we move into the debate in question about
18 illegal behavior versus behavior that resulted in unjust
19 and unreasonable price, it's very important that we do

20 not unintentionally provide the Federal Energy
21 Regulatory Commission with still another cover to avoid
22 taking responsibility. That cover being, well, gee
23 whiz, these might have been illegal and maybe some
24 individual guys did things illegally, but most of them
25 didn't do things illegally, or we can't prove that they

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1 did things illegally. We think they did things
2 illegally, but we'd have to go to court and prove it.
3 FERC does not have to prove that anybody did
4 anything illegally, nor do the requirements for
5 companies to disgorge the profits that they realized as
6 a consequence of a market that was gamed, even if the
7 game -- it was gamed legally, nor does FERC have to --
8 have to find any illegality associated with that as a
9 result. They need only to do what they have already
10 done, is to recognize that the prices in the market were
11 unjust and unreasonable. They have already made that
12 finding, now they have to attach the remedy.

13 If in fact there were illegal activity, that is
14 a decision in a -- an exercise for not only a certain
15 sort of division or subset responsibility of FERC to
16 exercise, but that's a job for the federal attorneys,
17 for the U.S. Attorney's office, for the Attorney General
18 and others in terms of pursuing those -- those legal
19 issues, so I believe you have your documents in front of
20 you, but I just want to make sure we recognize that.
21 And to be perfectly honest with you, I have a heck of a
22 lot more consternation over FERC's behavior than I do
23 any of the company's behaviors, including Enron's.

24 I don't have any -- I don't have any reason to
25 have any expectation for any of these companies to do

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1 anything other than just to attempt to maximize their
2 profits and make as much money as they can. And I also
3 expect them to try and test the bounds of what's legal
4 and what's not legal, that's what private companies do.
5 The culpability is FERC, and in particular
6 those folks who have rotated in and out of FERC over the
7 past decade as this mouse trap was built. And so I
8 would hope that we not lose -- lose track of that as we
9 pursue the legal issues.

10 Thank you, Mr. Chairman.

11 CHAIRMAN DUNN: You stole some of my comments,
12 Senator Peace, they were right there.

13 SENATOR PEACE: Sorry.

14 CHAIRMAN DUNN: Oh, not at all, appreciated.
15 Senator Bowen, did you want to make some comments?

16 SENATOR BOWEN: Yes, if I might. I think the
17 real take away from what Senator Peace just said, and
18 the thing that I have been saying over and over again as
19 people asked me well, you know, was this illegal
20 behavior? That's not the question. The question is
21 were wholesale prices just and reasonable.

22 I -- as we look at the future, because this
23 Committee was formed in order to learn from the past so
24 that we could create a system for the sale, distribution
25 of electricity that would benefit all Californians, not

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1 just those who are market participants on the sales
2 side. I think it's very important to keep in mind that
3 the documents that we're looking at, and I have to say
4 that this slide presentation -- it's actually hard for
5 me to talk, I'm so angry reading this.

6 Because the idea that someone who you contract

with to build your computer system for trading would then go market, sell for a profit the -- the mechanisms by which their own work can be taken advantage of to gouge consumers is really outrageous. But I think it's very important for us to recognize as we look at this in following Senator Peace's comments, that none of the documents that we're dealing with that have provoked FERC to take the action that it has, have come from any FERC oversight.

Every document that has been important in this has come from the work of either the Attorney General or Senator Dunn and this Committee. And so as people complain that, you know, this is FERC's job and California is wading into it, I think it's very important to realize we wouldn't have this, we wouldn't have the documents that describe the trading strategies. And I was very interested to see the reference, the game reference in this to the Silver Peak intertie, which is one of the specific points mentioned in one of the memos

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that we got earlier that describes the Enron gaming. These documents are coming from here and so for anyone to argue that the State should not assert a role in assuring that energy markets in California benefit customers, I think at this point there's no credible argument that can be made that we should continue -- that we should continue with a system that leaves Californians at the mercy of the federal government.

And I think specifically, as we deal with right now FERC's proposal to order us to change the governance of the Independent System Operator in a way that may make it once again the captive of interests other than those of Californians in general ought to be of grave concern to all of us, because we wouldn't have much of the work we have right now if we were -- if we were still captives of a governing board that was so conflicted, had such institutional conflicts of interest that there was no way that they were going to take this -- the market participants were on the board, many of them, had this sales pitch. We had people who got this sales pitch voting on the ISO board. That can never be allowed again.

SENATOR PEACE: Madam Chairman, lets not let -- you and I were sitting -- you were formerly on the oversight board at the time and you and I wrote a

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letter. We went down to the ISO board. We formally pushed to get -- keep the cap in effect and -- and the very same companies, armed with their cozy relationship with FERC.

SENATOR BOWEN: With these kinds of documents.

SENATOR PEACE: Right, beat us back and defeated the maintenance of that cap by one vote. And the history will also show that Enron's demise was actually built in 1999 when they didn't know the cap was going to be kept in place, because you and I, at the last minute in May of 1999, got the cap in place at the ISO. Enron could not have known, nor did we know that that was going to happen. They already engaged in these strategies set up to attack, with their Texas allies, the California market in the summer of '99.

An unexpectedly mild summer and the ISO cap prevented them from being able to game the PX against the ISO market. That is part of the reason why Enron built such deep losses in '99 and found themselves on

20 the ropes in 2000 and had to engage in more aggressive
21 behavior.

22 The -- the -- this -- we will have no choice.
23 And, you know, in May of 2000 I told some of the folks
24 who are in this room when I got -- when I gathered
25 together the generators and told them, headlines are

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1 going to be that the market comes to the rescue of San
2 Diego or the government comes to rescue of San Diego.
3 If the headline is the government comes to the
4 rescue of San Diego, you guys are done. This will
5 unravel all the way to Washington. Nobody believed me
6 then, nobody is going to believe what I'm going to say
7 to you now, but I will tell you, unless the Federal
8 Energy Regulatory Commission responds in the -- the --
9 to the State's filing in the form of refunds that
10 actually occur going all the way back to the beginning
11 of the summer of 2000 in the multiple of billions of
12 dollars, as we have demanded.

13 We don't know it yet, but we will ultimately,
14 including many of my republican colleagues, take the
15 entire system to public ownership, because it is the
16 only way to assure that we are not the unwitting victims
17 of a federal government that is owned lock, stock and
18 barrel by both a culture and a group of businessmen,
19 many of whom think they are doing the right thing,
20 that -- that we can't afford to allow our economy to be
21 -- to be controlled by. We wouldn't have any choice.

22 And I think that you will see that once we get
23 past the election of November of 2000, things will move
24 very rapidly. There is no future in the illusory notion
25 that FERC continues to perpetuate that they are going to

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1 be able to build RTOs based on federally mandated
2 central government models because the rest of the
3 western states, in particular our Republican colleagues
4 in the rest of the western states will not allow their
5 constituencies and their markets and their economic
6 destinies to be controlled by Washington.

7 SENATOR BOWEN: We have to give them credit for
8 learning from our experience. They would be insane to
9 allow it.

10 CHAIRMAN DUNN: All right. What I want to do,
11 thank you Senator Peace, thank you Senator Bowen. What
12 I'd like to do, now that I believe everybody has it, I
13 want to just walk through it quickly, and yes it will be
14 very quickly. Robert, you may want to, while we're
15 doing this, wander up here. We don't need it on the
16 screen because everybody has got it now and get ready,
17 because we're going to turn it over to you in just a
18 couple minutes, so you may want to wander up to the
19 table here, but not yet, though. Now I'm going to walk
20 through it quickly. I want to make some final comments
21 because I'm going to underscore what Senator Peace
22 raised regarding FERC and its role here.

23 If you take a look at the document, I just want
24 to highlight a few things for you, if you are walking
25 through it. Page 1, basically they are talking about

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1 what's the underlying basis to the PX and the ISO
2 markets. That's true for the first few pages.
3 But you get to page 5, it talks about reality
4 versus economic theory. Basically describing why what
5 they set up wasn't the reality of it, wasn't what the
6 economic theory was behind the original establishment of

the market.

You go to page 6, they talk about some of those differences between reality and theory. Note they talk about locational market power due to transmission that the establishment of the market did not account for.

They talk about potential cooperative behavior among participants. They talk about how parties can bid strategically to take advantage of deviations from the theory.

Skip forward again to page 8 to strategic decisions that a market participant can make in California. Decide how to use resources, bid capacity in one market, withhold in others. Tactical decisions, treat physical constraints, skipped and protocols when bidding or ignore and lean on the ISO.

Next, page 9. You will see that they even talked about war gaming Red Team, Blue Team competition as they test that market that was established by them.

Continuing through, again, letting everyone

read along at your own pace as you see fit. Going up to page 14, acknowledges that ISO, PX will recognize the holes in the system as they operate, but there's a time lag between recognizing and closing the gap -- and those gaps which creates a window of opportunity, in closing one gap, may open others.

Page 16. Example of a protocol gap. Perot system discovered a hole in the ISO protocols for buying, selling and pricing imbalance energy. Note, Perot Systems is not going to ISO and PX to tell them this, they are going to market participants, at least as it's been told to us.

Skipping forward, they go through many different examples. Just note, page 21, "The structure of the real time imbalance energy market would have permitted strategies by which a market participant could have controlled the ex-post price and other advantages to the market participants of some of those defects in the system."

Starting on page 24, they give case examples. Case 1, ISO needs additional energy and they go through and explain it. Case 2, ISO must reduce output -- I got it, sorry about that, Dennis. I have been advised to speak a little more slowly. I warned everybody when we started this 15 months ago, most people think us

Minnesotans talk slowly. We talk fast.

Page 31, another protocol gap. Perot Systems advises in this presentation another hole in the PX protocols. And note, they say, a small participant can control prices in California and destabilize the PX market. As you know, we have raised that issue of whether in fact there was a strategy to attack and destroy the PX or to destabilize it.

And just skipping forward, you will see page 41, they talk about the game, and as I said before, they even identify the participants as gamers in that process. I just want to wrap up with a couple of comments. Mr. Sher, Senator Sher.

SENATOR SHER: I just wanted to ask you a question about your conclusions with respect to the conduct of Perot Systems.

Is it your conclusion, assuming these sales, these marketing presentations were made to the participants in the market, and I understand you say

20 that's being disputed by Perot Systems, but assuming
21 that they were, the conduct of Perot Systems in your
22 view, would that have been a violation of obligations
23 that they owed to the PX and the ISO; that is, under the
24 contracts that they made for setting up this system,
25 the -- some kind of implied, if not express,

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1 undertakings not to undermine the system that they set
2 up, is that the conclusion?

3 CHAIRMAN DUNN: The answer, Senator Sher, is
4 preliminarily, yes, we have a number of areas we have to
5 explore to fully bring out what occurred here, that
6 seems at first blush as being very bad. We don't know
7 the language of the contracts retaining Perot Systems
8 initially when the PX and the ISO were established.

9 We don't know the contents of contracts for
10 expansion and extension of the IT relationship between
11 Perot Systems and the ISO and PX, but as a general
12 principle, sure, Senator Sher, the concern is one of a
13 conflict of interest. That when and if Perot Systems
14 discovers holes, as they say, in the system they
15 establish for the ISO and the PX and how it could be
16 gamed, that their primary obligation, I would assume,
17 ran to the PX and the ISO to advise them of that fact
18 and not to advise market participants how to take
19 advantage of those holes and errors that are -- were
20 built into the ISO and PX systems.

21 SENATOR SHER: Would Perot Systems have had an
22 obligation to anyone else other than, in your opinion,
23 other than the PX and the ISO with whom it had
24 contracted?

25 CHAIRMAN DUNN: Clearly I would assume, again
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1 we're talking in general principles, Senator Sher, that
2 that duty to the Cal PX and ISO would run to the
3 California consumer as well, but as far as additional
4 legal duties and obligation they own -- owed, we don't
5 know until we have had an opportunity to review those
6 contracts.

7 SENATOR SHER: Thank you.

8 CHAIRMAN DUNN: Some additional quick comments
9 and then I have asked Mr. McCullough to testify -- to
10 make his comments and observations on these documents.
11 I'm sorry, Senator Morrow.

12 SENATOR MORROW: Senator, and I apologize if I
13 interrupt the flow.

14 CHAIRMAN DUNN: No problem.

15 SENATOR MORROW: Earlier when you opened you
16 made a comment that there had been some sort of contact
17 with Perot Systems.

18 CHAIRMAN DUNN: Yes.

19 SENATOR MORROW: Maybe a conversation with
20 Mr. Perot.

21 CHAIRMAN DUNN: Yes.

22 SENATOR MORROW: And I may have missed, are
23 they saying, at least thus far, are they denying that
24 they gave a presentation altogether?

25 Do they have any explanation at all for this?

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1 CHAIRMAN DUNN: Let me get right to that point.

2 SENATOR MORROW: Okay.

3 CHAIRMAN DUNN: Senator Morrow, happy to
4 comment on it. We have received contact directly from
5 representatives of Perot Systems. Those were with Chris
6 Schreiber, who is sitting in the front row from our

staff, and I received a personal call from Mr. Perot himself early this morning.

Let me first relay the conversations that Mr. Schreiber had with the representative from Perot Systems. In that they first, of course, stated that they are investigating it. They are trying to determine, you know, exactly how those documents were produced, when, why, so forth. They stated to Mr. Schreiber that they believe they were produced in 1998. We believe that is a little too early, and you will see why when you hear Mr. McCullough's comments.

They also stated that to their knowledge, this was not prepared for or given to market participants, but rather for purposes of the PX, for presentation to the PX.

In our discussions with Reliant, and I believe you should have a letter from Reliant there, they acknowledge that the presentation was made to Reliant and Reliant believes it was made to other market

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participants as well. Therein lies the dispute that needs to be resolved, Senator Morrow, on that very issue.

With respect to the phone call I received from Mr. Perot this morning, the -- I was pleased with the outcome. Mr. Perot identified himself. He stated that he had read the press report in the Los Angeles Times this morning. He wanted to assure me that the Committee would have not only his, but Perot Systems' complete cooperation. He stated there would be absolutely no obstacle of any kind placed in the way of the Committee in its investigation concerning Perot Systems' involvement with this presentation, the documents, Cal PX, ISO and other market participants.

He stated to me that his company held as its highest priority ethical behavior, and that if in fact what occurred -- what the LA Times described is correct, he found the behavior to be despicable, he would not tolerate it and he would get to the bottom of it and ensure that it never happened again within Perot Systems.

I appreciated the promise of cooperation from Mr. Perot and it is my sincere hope that he and Perot Systems will live up to that promise as we move forward in answering the many questions that arise from this

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particular document.

I'm concerned at several different levels. Of course, if it appears as it does at first blush to be the presentation to market participants on how to game the system, Perot Systems itself is going to have to account for its behavior, but I also want to know whether other market participants received the presentation, when they received the presentations and, in particular, as we all know, there were representatives -- representatives of the market participants on the ISO board.

If, in their fiduciary duty to that board, they were also aware that Perot Systems was making presentations on how to game the system and did not bring the fact of that presentation to the attention of the board, the question they violated their fiduciary duty to the ISO board.

Dynegy had a representative on the board at that time. Enron had a representative on that board

20 and, in fact, the chairman of the board was from IEP.
21 We need to know what each of them knew about this
22 presentation.

23 I also want to underscore what Senator Peace
24 and Senator Bowen said. AB 1890 attempted to establish
25 an economically independent ISO board, that was rejected

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1 by FERC. And I am -- I -- this person is concerned that
2 with a stakeholder board, it could have given rise to
3 that conflict of interest that seems to have arisen over
4 Perot Systems' behavior. FERC rejected that
5 economically independent board and demanded and got its
6 desired stakeholder's board. I question whether that
7 fundamentally was the source of this type of conflict of
8 interest.

9 Additional questions we're going to have to
10 answer that we simply don't have today, of course, who
11 else saw the presentation. Who retained Perot Systems
12 and what did they know about these potential
13 presentations after the establishment of the ISO and the
14 PX -- and the PX.

15 What are the relationships between the market
16 participants and Perot Systems? All questions we need
17 to answer in the coming days, weeks and months.

18 If there are no other comments from the
19 Committee, I'd like to ask Mr. McCullough to first
20 identify yourself, although I suspect many people in the
21 room know you, Robert, and if I can just give you one
22 generic question.

23 Will you please share your thoughts with us
24 concerning your review of the Perot Systems document
25 and, I'm sorry -- go ahead, Senator.

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1 SENATOR BOWEN: I actually think it would be
2 useful, since we're establishing a record, to have
3 Mr. McCullough a more formal introduction.

4 CHAIRMAN DUNN: I think that is appropriate.
5 SENATOR BOWEN: Also, while some of us may know
6 who he is, there may be people in the audience or people
7 who watch this at a later date, since I suspect that
8 this is going to be a discussion that will be of
9 interest to others who are not currently seated in this
10 room.

11 CHAIRMAN DUNN: And, thank you, Senator Bowen,
12 I think that's absolutely correct.

13 Stephanie, why don't we swear the witness in
14 and I will introduce him after the swearing in ceremony.

15

16 ROBERT MCCULLOUGH,
17 a witness herein, having been sworn, testified as
18 follows:

19 THE WITNESS: I do.

20 CHAIRMAN DUNN: For purposes of introduction,
21 Mr. McCullough is a principal in McCullough research in
22 Portland, Oregon. McCullough Research has been involved
23 in tracking the California Energy Crisis for several
24 years now from a variety of different perspectives. In
25 my humble view, there are few people that have the

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1 experience and insight into the causes and impact of
2 this Energy Crisis, not only here in California, but
3 throughout the nation.

4 I would ask if we could, as a start,
5 Mr. McCullough, if you can give us a general summary of
6 your background leading up to your work in this area.

7 THE WITNESS: Yes, Mr. Chairman. For many
 8 years, I was an executive at Portland General Electric.
 9 The McCullough Research firm was started at the
 10 beginning of the '90s. My background is economics,
 11 Reed, Portland State and Cornell. Our client base of
 12 McCullough Research ranges from corporations and
 13 aboriginal groups in Quebec, industries, the utilities
 14 on the West Coast.

15 We have been active in the bulk power side of
 16 the business ever since the mid-'80s. I helped found
 17 the first electric brokerage in the country, Portland
 18 General Exchange.

19 This particular crisis was communicated to us
 20 on May 22nd, 2000. I was in Montreal at an industry
 21 convention sitting with the head of the Oregon
 22 regulatory board, a number of other utility executives.
 23 Our clients began to call immediately when the prices
 24 diverged.

25 We were retained by a group of industries and
 0039 utilities on the West Coast to get to the bottom of
 1 this. That was two years ago. Since then we have
 2 worked for a variety of parties, both public, private,
 3 industrial, governmental.

4 Our work has been the basis of numerous
 5 studies. We have testified three times before the U.S.
 6 Congress, in front of many other boards and courts. Our
 7 reviews have been used extensively, but perhaps the most
 8 important role has been as a center of information.

9 Given the problems of gaining information in
 10 California, we provided information almost to every
 11 major body, including the oversight board, the PUC and
 12 the CEC, the PX, and more recently this past year, we
 13 have been following the Enron collapse very carefully
 14 for many of the same clients. Thank you.

15 CHAIRMAN DUNN: Okay. Let me just give you the
 16 one request, Mr. McCullough. We provided these
 17 documents, referring to the Perot Systems documents, to
 18 you yesterday after confidentiality was waived, and I
 19 understand you have had an opportunity to review them.
 20 And will you please share with the Committee your
 21 observations on the Perot Systems documents.

22 THE WITNESS: I am glad to, and I'm honored to
 23 be invited here today. The presentation we have from
 24 Perot Systems has a couple of facets to make it easy to
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1 identify its target audience.

2 There were only two or three target audiences
 3 they could have chosen, the California PX, the
 4 California ISO or the participants. It's clearly not a
 5 presentation to the PX, because much of the mechanics
 6 they are discussing are ISO mechanics. We have done a
 7 quick search of ISO documentation for this presentation,
 8 not found any.

9 Moreover, this predates some discussions of the
 10 ISO and we would be very surprised to find that a
 11 detailed discussion of the incing/decing problem that
 12 was later solved by the target price methodology, and I
 13 apologize about that jargon, but we would be very
 14 surprised to find that as an ISO presentation, even an
 15 undocumented one, since those issues were not solved
 16 until 2000.

17 Now, that in itself isn't significant until you
 18 consider the page 41, which I have on the screen,
 19 pertains to Silver Peak. And when I give my comments on

20 the Enron documents in a few moments, you will see the
21 central significance of the Silver Peak gaming episode.
22 In 1999, Enron attempted to feed 2,900
23 megawatts through Silver Peak. Amazingly enough, that
24 scheme was almost identical to the scheme laid out here.
25 If this document had been developed in 2000, therefore,

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1 it would have mentioned that we would have had the
2 investigation into Silver Peak that was undertaken in
3 1999. Timing wise, therefore, we have to expect that
4 this document was before the Silver Peak episode.
5 Number two, we have to expect that it was to
6 neither the PX nor the ISO and that, of course, is
7 consistent with the language throughout. Simply using
8 the word -- the language gaming would be unacceptable in
9 either the ISO or PX context because, of course, they
10 had their own Market Surveillance teams that were
11 engaged to deal with this.
12 Bottom line is pretty simple. This is a --
13 looks to be a marketing document. It's a marketing
14 document that proves the presenters were very, very
15 bright, I don't think there is much doubt about that.
16 It's also a marketing document that's going to be of
17 much interest to someone who would like to take
18 advantage of these steps.
19 There's some debate still whether it's criminal
20 or even unethical to take advantage of bad ISO rules.
21 However, the PX made it very clear that they felt it was
22 completely unacceptable to undertake the scheme in 41.
23 So anything on page 41, we already have internal PX
24 documents that make very clear the response. This,
25 therefore, was almost certainly presented to the very

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1 few major players in the California market.
2 CHAIRMAN DUNN: Okay.
3 Go ahead, Senator Bowen.
4 SENATOR BOWEN: Can you tell me who was serving
5 on the Market Surveillance and Monitoring Committees at
6 the PX and the ISO?
7 THE WITNESS: I don't have that with me today,
8 I'm sorry.
9 SENATOR BOWEN: I think that's one of the
10 questions as the Committee begins to look at who had the
11 fiduciary duty. We clearly need a list of people who
12 served in various capacities on boards or Market
13 Monitoring Committees. I'm envisioning a spreadsheet
14 that says which, you know, where their services were. I
15 think that would be a way to get at the concern about
16 conflicts.
17 CHAIRMAN DUNN: Okay. Mr. McCullough, just a
18 couple cleanup questions. From your observation, and as
19 you just stated, does it appear to you that at least
20 some of Enron's strategies as laid out in those memos of
21 a few weeks ago are described in this document, which
22 appears to have predated the Enron memos?
23 THE WITNESS: Absolutely. The references to
24 incing and decing are Fat Boy. The discussion of 41 and
25 its associated pages.

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1 CHAIRMAN DUNN: That's the Silver Peak
2 discussion.
3 THE WITNESS: Silver Peak is exactly on line
4 with the Enron documents that you unearthed just this
5 past week.
6 CHAIRMAN DUNN: Okay. Can you explain very

quickly Silver Peak and why it is of critical importance in this entire process.

THE WITNESS: I can. It would be best if I worked from the slides on the --

CHAIRMAN DUNN: On the other presentation?

THE WITNESS: (Witness nods head).

CHAIRMAN DUNN: Okay. What we want to do is wait, because I promised everybody we'd take a break before we get --

THE WITNESS: Very good.

CHAIRMAN DUNN: -- into the other area and more lengthy area of your testimony today, Mr. McCullough. So does the Committee have any further questions, comments.

Senator Morrow.

SENATOR MORROW: I do real quick, and I apologize because I have heard so many names and I'm starting to get them mixed up. I thought this was a variation, looking on page 41, of the Deathstar

scenario.

THE WITNESS: This is Deathstar, there is incing and decing, which is real time markets and that's what Enron called Fat Boy.

SENATOR MORROW: The Fat Boy, okay, I got it. Thank you.

CHAIRMAN DUNN: Okay. Any other comments, questions from the Committee?

On this particular issue, as you can well imagine, the Committee will pursue it vigorously. I will take Mr. Perot at his word and accept that they will fully cooperate and provide full access, no obstacles in our way as we get to the bottom of this. That will be done on an expedited basis. I suspect it could involve interrogatories, certainly will involve document requests, potentially depositions as well.

Mr. Perot also offered that if at any time the Committee would desire him to come to Sacramento and testify for the Committee, he will make himself available whenever you request. We will keep everyone posted as we move forward in that regard. He will bring his own charts, we suspect that is probably true. We are all having visions of the '92 election year.

I shared an opinion before. It is my opinion, I'm not speaking on behalf of the Committee here, but at

first blush, the documents are very disturbing to me, and if they turn out to be as bad as potentially could be, this to me is corporate behavior at its despicable worst when a fiduciary obligation, in my view, may have been due and owing the PX and the ISO. Given Perot Systems' initial work and ongoing work for both Cal PX and the Cal-ISO, that instead of honoring that fiduciary duty they chose to market the weaknesses to the market participants. We may find ourselves in a situation where Perot Systems sits in the core of what ultimately became the economic rape of California. I hope that's not true, but certainly at this point it's -- the documents show a disturbing picture.

Unless there's other comments from the Committee, let us take about 15-minute break. We will reconvene at 11:00 o'clock and go into the issue of the municipal -- certain municipal's relationship with Enron and its impact on the market. Fifteen minutes.

(10:49 a.m. - 11:09 a.m.)

CHAIRMAN DUNN: Okay. Why don't we get everybody seated so we can start up again, much to the pleasure of some and chagrin of others, I'm sure.

I just want to give a quick introduction into this issue and turn it over -- back over to Mr. McCullough, who's got a presentation on this particular issue.

The issue is and, I'm sorry, before I go into that, I want to extend a thank you to Senator Morrow and his staff. Many months ago Senator Morrow and his staff agreed to assume responsibility for the municipal -- the investigation as to the municipal electricity system. They have been at it for a number of months now, have done extensive work in reviewing of documents. They have been at a number of the municipal electricity systems throughout California and their investigation continues.

The documents we're going to talk about now relate to the municipals. I don't want to intrude into Senator Morrow's territory, but these were documents that were discovered in Enron's files. When we came across these documents, we raised an issue with Enron as to the confidentiality. Enron had no objection to them being used and disclosed publicly.

The municipal electricity systems that are involved were notified that we intended to do so and raised no objection themselves to the use of these documents, at least this Committee has received no such

objection.

You should have a copy of the packet of documents, the Enron documents. There's about 10 or so pages that we handed out a little bit earlier, they were outside the committee room. And at its core, what you are about to hear is that certain municipal electricity systems were involved with Enron to create false congestion, false congestion that led to the blackouts of early last year and false congestion that the ISO bought hook, line and sinker. In other words, the blackouts of early last year were unnecessary.

Without anything further, Mr. McCullough, are you ready to go?

THE WITNESS: Yes, Mr. Chairman.

CHAIRMAN DUNN: Please.

THE WITNESS: Thank you for inviting me again.

Last week we received from the Committee approximately 200 pages of internal Enron documents. These documents were trading documents, all the way down to actual daily trading sheets, memos on specific schemes and also the computer instructions how these were to be entered into Enron.

CHAIRMAN DUNN: I'm sorry, Mr. McCullough, if I can interrupt, I forgot one thing. Mr. McCullough has prepared a 17-page document that lays out the substance

of his testimony today. We are having that copied. I think there are some copies in circulation already.

What he will be showing on the screen is not directly from that report, but for the presentation he has prepared today. My apologies, Mr. McCullough.

THE WITNESS: It also includes the actual

7 computer instructions for entering these trades into
8 Enron systems and into the ISO systems.

9 The Chairman has kindly allowed me to fall back
10 on my first career as a teacher, and I am told that the
11 bell will ring within the next 30 minutes. And I
12 learned in teaching college that only a very brave
13 person would stand between the students and lunch, so I
14 will -- I will be brief.

15 This is a subset of the materials available in
16 the report we made available yesterday to our clients,
17 and I'll walk through this fairly quickly, and there are
18 several graphics that, hopefully, will make it somewhat
19 more understandable.

20 The first issue is the background. For two
21 years Enron has opposed this discovery. We have not
22 been able to get this level of materials in any of the
23 investigations or in lawsuits that we have been involved
24 in.

25 This is a super set of the documents that came

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1 out of FERC three weeks ago. What we saw at FERC was a
2 lawyer, a beginning lawyer's summary of these schemes.
3 What we have here is actually the real-life description
4 and implementation of those -- those schemes.

5 Moreover, some questions were raised well, were
6 these plans, did they ever come to pass? We actually
7 have not only the schemes, but we have the real-life
8 results, so there is no question at all that this came
9 to pass on a daily and repeated way.

10 FERC has begun to react on this issue.
11 Yesterday FERC initiated a show cause proceeding against
12 Williams, PG&E and Vista, all of whom are mentioned to
13 some degree in these documents. We also have materials
14 that indicate that PacifiCorp was involved.

15 On the California side, all of the -- all the
16 schemes use municipal nonISO transmission, that's part
17 of the structure of the Deathstar scheme. So we also
18 have involved LADWP, Redding and NCPA.

19 We -- there really is a shift here that goes to
20 this question of fraud. This is check kiting. This is
21 not simply fooling someone in terms of a complicated
22 computer program. Check kiting is when a con man passes
23 checks back and forth between accounts so as to fool the
24 bank and other parties that there was actually money
25 behind the checks.

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1 In the parlance of utilities, the checks here
2 are schedules, money is flows, actual electricity.
3 These schemes had schedules but no flows. There was no
4 money in these checking accounts. This is simple
5 commercial fraud.

6 Now, this is also something very irritating to
7 long-term utility executives and experts, because by
8 filing schedules that are not matched with energy, you
9 basically at some point begin to reduce the stability of
10 the system. We depend on that relationship, that's what
11 keeps the lights on, so this goes to a very -- in a very
12 central way, in a very basic way, this is threatening to
13 people who have their career in this industry.

14 For those of you who are new to congestion in
15 California, and at this point that's almost a joke,
16 since we have been living through these crises for so
17 long, the plan was the people would preschedule on a day
18 ahead or hour-ahead basis their use of all the lines.

19 This fat blue arrow represents the need for a

specific line. The little green arrow represents how much power you could move over that. The difference where the dollar sign is the adjustment bid. That's a bid put in by the market participants in order to accept an adjustment of that schedule in order to meet the reality of what could be carried over the line. All of

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the schemes I'm going to discuss today are in fact Deathstar schemes. They are all based on this fundamental mechanism.

CHAIRMAN DUNN: Mr. McCullough, if I could interrupt for just one second. For the Committee's sake, we're a little blind to it. We have -- Senator Morrow, you may want to move over here. Alex, why don't you slide down so we can see it from here. Senator Bowen, you want to come here as well, too, and I'll sneak down here. I'll join everybody down here.

THE WITNESS: Mr. Chairman, you asked earlier about Silver Peak. I wanted to defer it until we could put it in context, and also where we had all the facts laid out.

In 1999 Enron tried to deliver 2,900 megawatts across a 15 megawatt line. There was, potentially, no profit in a transaction that was clearly impossible. If 2,900 megawatts of real power had been placed across that line, it would have been molten metal within a fraction of a second; however, there was no 2,900 megawatts on either side.

What there was was a precondition that would make the ISO invoke this adjustment mechanism and it would have created revenues from the adjustment bid mechanism. This was so large and so outrageous, it was

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discovered immediately. Enron faced what appears to be a relatively passive enforcement action.

It took over a year. It was not, in fact, publicized. There were very few comments made outside of Enron and the PX management. It's not clear that the ISO ever investigated this. The settlement was for \$25,000.

Now, just to give you a bit of context, the entire City of Sacramento uses less electricity than this one transaction, so \$25,000 in this context was worse than noise. It was a trivial amount of money. It was less probably than the commission that the trader would have made himself for the trade, let alone the profits for Enron. Greg Whalley, the director of UBS Warburg, the buyer of the Enron trading unit --

CHAIRMAN DUNN: Do you mean currently?

THE WITNESS: Currently was the head of Enron trading at the time. He signed the settlement that agreed not to repeat this. We now know from these documents that he was simultaneously developing almost identical schemes, though somewhat more sophisticated.

Here is a quick chart of Silver Peak. Now, none of you will have ever heard of Silver Peak transmission line because it's so small. SR3 is the ISO label for this. They wanted to feed in 2,900 megawatts

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across this 15-megawatt line and then move that on into SB15, which after two years of California Energy Crisis, is ISO speak for L.A.

Here are descriptions from the documents we received from Enron. These were from the California-PX enforcement action. Item 3 describes when it took

place. Item 4 describes that Enron became the successful bidder for 2900 megawatts. They then went ahead and submitted the schedule to the ISO. Then Enron received a telephone call from staff at the ISO. In this conversation Enron agreed that it had scheduled 2,900 megawatts on a 15-megawatt line. They stated that they had not done this in error and they did not want an opportunity to change the schedule.

This violated PX rules. In return, Mr. Whalley signed this consent agreement, and you will see that he agrees not to repeat this particular behavior quote, "engage in substantially the same conduct."

Now, my staff found this very interesting. It gives you an idea of the sensitivity of this. This is, in fact, a letter signed by Richard Sanders noting that he had been able to convince the PX not to give these documents, all of these documents to the Attorney General.

CHAIRMAN DUNN: Mr. McCullough, could you

identify Mr. Sanders.

THE WITNESS: Mr. Sanders is an attorney at Enron.

Now --

CHAIRMAN DUNN: Back into the mic, sorry.

THE WITNESS: Yeah, one of our problems from the beginning is simply finding out what's going on. And the fact that this type of document would not have been handed to the Attorney General is amazing to me. It's not something that would just be overlooked. This was the single major investigation that we know of over this time period.

And, of course, we have discussed page 41 of the Perot Systems today. The Perot Systems slide describes almost exactly how this particular scheme would operate. Amazingly, it even identifies Silver Peak.

Now, this could have worked with the correct scale anywhere on the California system, and as we will soon see, Enron designed similar schemes across the ISO system, but coincidence of locations indicates that it was almost the equivalent of handing grade school children loaded revolvers when this presentation was made and then letting them go out to play.

Clearly, traders immediately went out to see if

this scheme could actually operate.

CHAIRMAN DUNN: Mr. McCullough, if I could interrupt. I'll speak loudly so everybody can hear me. In other words, put in lay terms, what we found in Perot Systems documents resulted in an actual strategy by Enron regarding Silver Peak?

THE WITNESS: This is -- appears to be exactly the case. The timing of the two documents, which at the moment we can only deduce from the context, would indicate that this presentation was made and a trader immediately went out and tried exactly the same scheme.

A little aside on flows and schedules. Electricity is a unique commodity, it moves at the speed of light. We do not direct flows. Regardless of how many dispatchers live at the ISO headquarters at Folsom, the electricity is moving on its own wisdom. It's actually following those classes we all had in grade school about making circuits.

We outsmart the electricity by planning ahead.

20 We establish schedules, the term of art outside of
21 California is preschedules. In California this is known
22 as day ahead or hour ahead so that we will know how to
23 operate the entire system so that we will know where the
24 electricity will end up.

25 It's almost like doing a deal with a diamond

0056

1 merchant in New York where their word is their bond, a
2 whole group of people who are incredibly honest do
3 these -- their business by handshakes.

4 Every schedule is intending to represent a
5 flow. Moreover, if they don't, we will not be able to
6 plan ahead and we can easily run into a catastrophic
7 system failure. This is a quick map of the California
8 system, PACI is the Pacific AC Intertie. The huge
9 lines, the largest system in the world that goes up to
10 Oregon.

11 In the early '90s, the California municipals
12 built a parallel system to expand this. Theirs is
13 called the COTP, California Oregon Transmission Project.
14 These two lines work together. In fact, the ISO
15 operates the lines, but as a legal matter, the COTP
16 capacity is not subject to ISO direction.

17 In practice, you can move power back up the
18 COTP that you moved down the PACI and the California ISO
19 will never recognize these completely counter scheduled
20 loads would cross off. That tends to be a central part
21 of all of these schemes.

22 Deathstar is a generic name that we learned
23 three or four weeks ago from the Stephen Hall memo.
24 It's designed to decongest to the ISO system with
25 imaginary energy. As I noted before, Deathstar

0057

1 specifically intends to create imaginary energy matched
2 to schedules. In other words, it violates a central
3 tenet of how we run the system.

4 Each scheme depends on a parallel path, so that
5 power could be moved one way on an ISO line and then
6 back up the other way on a line not controlled by the
7 ISO. Amazingly, the ISO, in a sense, participated in
8 their own victimization because their systems were not
9 able to detect this scheme.

10 Now, if we did not have the centralized
11 computerized system in California, if we had the systems
12 used elsewhere on the West Coast, the operators at
13 Seattle or in Tucson, or any of the other major cities
14 would have said, there's nothing happening here, these
15 are completely canceling transactions.

16 In fact, we have some evidence from materials
17 that the Committee has found from PacifiCorp that when
18 they figured out what was going on, they simply wrote
19 memos to themselves, this is an odd situation, we would
20 like to distance ourselves from it. No one could
21 believe that this is anything but gaming. So in a
22 sense, the over centralized, over computerized
23 arrangement really helped because it was difficult for
24 the ISO staff to catch these abuses.

25 SENATOR BOWEN: Mr. McCullough, could you

0058

1 explain in greater detail how this happened without --
2 why it was hard for the ISO staff and the system to
3 control it, and why if it had been in the WSCC control
4 area or WAPA or some other area, it wouldn't have been
5 seen. I'm not understanding what happened.

6 THE WITNESS: Trying to explain ISO systems

often gets a look that you yourself may have become slightly mad, but the ISO basically centralized everything through computer systems designed to take computer file schedules --

SENATOR BOWEN: Do you know who wrote the software?

THE WITNESS: We know from FERC this is an excellent approach. The difficulty with it is not the computers themselves are poor, but because it takes the transactions away from the immediate experience of the operators, so where an operator elsewhere on the West Coast would be expected to review personally these transactions to make sure that they made sense, and furthermore often they will go ahead and make sure they make sense pertaining to their industry experience.

We like to believe we understand everything in the world, we don't. Quite often a gnarly engineer, who is not photogenic, will be sitting at his desk looking at this, understanding it might be an operating problem

It's not even in a computer. He's like an airplane pilot that's not expected to do anything significant, except for that one flight where his 20 years of experience saves the system.

Because that's the focus outside of California, they would have discovered these more quickly. We have some evidence that people did. Within California, the computer system is dominant. There is no human step. In a sense, the system is driven by a robot. It's also exceedingly complex.

Every schedule is matched by adjustment bids. I went through that before. A single hour at the ISO can lead to schedules, adjusted schedules, adjusted bids, then hourly schedules, adjusted bids. When we finally get to the real hour, we may have literally hundreds of gigabytes of data, and the most brilliant, gnarly old engineer couldn't follow it.

In a sense, it's a proof of that old rule that 10 percent of the work gets 90 percent of the result, and the remaining 90 percent of the work doesn't achieve much. The ISO has reached such precision that it's not always accurate.

SENATOR BOWEN: Can I try in lay terms, the problem is it's so complex that it's hard to separate what's important from just the normal noise.

THE WITNESS: Very much so.

SENATOR BOWEN: So it's actually a lot like what happened before September 11th, so much information you can't tell what's important.

THE WITNESS: From the vantage point of outside analysts like ourselves, it's an amazing amount of resource required to follow this. Even if we didn't have the problems with the lack of availability of data in California, which is going to be a central point of my presentation.

Even when we get the data, and those of us who are in the FERC cases have a lot of the data that's not available here in California, we're still talking about hundreds of gigabytes of data. We have whole computer systems dedicated to following specific legal issues at the ISO, all of which are secret, and even when we know them we can't talk about them.

So the upshot is that we've created a system that's very, very difficult to bring common sense to.

20 And the dialogue the Committee is currently having with
21 the ISO, for example, is an example.

22 I read the ISO's response and they said, well,
23 this was something we had to do for reliability. The
24 simple fact of the matter is there is no one outside the
25 ISO headquarters who is going to understand why that

0061
1 took place. And that's why CDWR was raising this, they
2 couldn't understand it.

3 CDWR is, outside of the ISO, the most
4 experienced player in California, and so if such
5 experienced players can debate, you can imagine how hard
6 it is for the rest of us to understand what they are
7 doing.

8 Let me turn back to my slide. This is an
9 e-mail from Michael M. Driscoll. It's actually May
10 2000, virtually simultaneous with Mr. Whalley's
11 statement that he was not going to do something similar.
12 This is the actual instructions to traders on how to put
13 together Deathstar.

14 Now, we're way past the point where we are
15 debating whether they were doing this. This is actually
16 telling you how to file your deal tickets. It's showing
17 who the counterparties are. A buy/resale with
18 Washington Water & Power selling at Malin.

19 We suspect that, in part, was designed to avoid
20 discovery by the Oregon Public Utility Commission, which
21 keeps a very careful eye on Enron, PG&E transactions.
22 You will notice differential. They pay Washington Water
23 & Power one dollar for this. That's a very small
24 payment in this context.

25 In this -- that will be one dollar per megawatt
0062

1 hour, but nonetheless this is not the amount of payments
2 you pay for a substantive service. This looks very much
3 like sleeving, which is simply to bring in a third party
4 in order to meet some contractual requirement. In this
5 case, the contractual requirement may well have been
6 keeping the Oregon PUC out of this transaction.

7 We see sales back and forth to Portland General
8 Electric. Again, this is an issue raised yesterday at
9 FERC, who has now issued a show cause order. It's not
10 clear to me that FERC has these memos, but FERC has
11 other materials that have taken them down the same path.

12 The bottom of the page, everything will link up
13 with a buy from PG&E on top, all the transmission and
14 buy resales in the middle and the sale to the PG&E
15 system at the end. This is a counter -- counter
16 schedule. Nothing is going to happen in the real world
17 here.

18 Now, a little map of what's happening will show
19 that we're about to take a trip all the way through
20 California. We're starting at Northwest 1, which is the
21 California Oregon border. We're going through NP15,
22 again, ISO for where we are now. ZP26, that's the
23 center of the state. This area here is what's known as
24 Path 15, then we're going to the L.A. area and then we,
25 in fact, are going off to Mead.

0063
1 We have crossed the entire state. The end of
2 the cycle is to use LADWP transmission to bring the
3 power all the way back to Portland. In a power sense,
4 nothing has occurred, however, given the conditions on
5 the system, they were eligible for congestion, here,
6 here and here. They could, in a perfect world, have

collected congestion fees three times from this transaction.

Worse than that, and that's only money, this is a rich country. Money we can afford, so the problem is that real movements of electricity might have been changed by this scheme. This actually might have warped the system. One of my concerns from the data that I will summarize in a moment is we may have seen the system being warped in January of 2001 when we did the rolling blackouts.

Around the offices of everyone in the industry now is the question of why are they calling this Deathstar. Now clearly we all went to see the movie where a huge space ship that could destroy planets floated around in intervening object, and that seems to deal with this issue of circling the moon.

And so we have a situation where, obviously, there's a presumption it's a bad thing, but it also seems to have very much the sense that it's a circling

operation, and that's true of each of these schemes as we go down through the materials.

Now, at this point when we have been talking about it internally to our office, someone said -- did this, ever do this? Well, this is actually one of the internal Enron deal logs. This is at the end of the day how you figure out what the profit and loss was.

Here are the Deathstar transactions they put through at this point. And, in fact, at the bottom of this page, which I did not reproduce, you can see how much money they had made from these schemes.

By the way, I put the document number at the bottom of each one so you can match that up with the documents the Committee has distributed.

We are most interested with Forney's perpetual loop. Now, John M. Forney is working at UBS Warburg in Houston and he was a central creator. His names are on many of these memos. He was, in fact, I suspect he's a very bright gentleman, several different ways of getting to the same result.

This is a handwritten document from Mr. Forney. And this particular section off to one side was very distressing to us. "No megawatts flow, just call in schedules." Now, again, this is fine so long as no one at the ISO took this seriously. If they called to get

the ISO and said we gamed your system, please cut us a check.

As an experienced person in the power business, I would have been irritated, but it would not have been serious. ISO would have been poorer, they would have been richer; however, if the ISO takes it seriously, then in fact we can have operating differences. Those operating differences could eventually affect the reliability of the system.

Forney's loop had some similarities to the basic Deathstar scheme. It went off to Palo Verde instead of to Mead. It used PG&E and Washington Water & Power in a different format. Again, it had the potential of collecting three different congestion fees for this nonexistent transaction.

Cong Catcher was designed to take advantage of Path 15. Cong Catcher shows a PG&E relationship four times on one page. We aren't quite certain how they managed to get this many Portland generals in there.

We certainly know that they were doing the round robin transaction. From documents we received, it appears that these were probably done with Redding or NCPA, both of which had the ability to pass through Path 15.

Now, this is a far more tactical arrangement.

This only would involve power going from L. A. to San Francisco and back. We especially like Red Congo because it has a far -- it's more dramatic. I envisioned some 1940s movie star in the Red Congo.

This uses Redding transmission to capture congestion payments right at the Oregon border. And, again, here are the exact scheduling instructions. This again is a John M. Forney document on how you take advantage of the ISO at the California-Oregon border.

You will notice that they are using WAPA as a scheduling coordinator. Another point they say, WAPA is not necessarily in on this, but they are required to do the SC trade. Then they say Redding is on board with this strategy as is PacifiCorp.

Now, we know from PacifiCorp's affidavit filed with FERC that it had figured this out and there are comments saying that they had taken steps to reduce their involvement in this process.

Red Congo is very tactical. It is designed to just take advantage of this one link. Now, it's important to remember, however, this one link is the largest single AC link in the system. This is a 4,300 megawatt link, so this is -- though it is the smallest in geographic extent, this is a very important part of the system.

Counterparties. We have a wide variety of counterparties that are involved in this. Portland General, Washington Water & Power and PacifiCorp. FERC has asked for further information from PG&E and Water Power. PacifiCorp has corroborated this.

Redding, NCPA and LADWP, we have yet to see their affidavits. Those will be available by FERC on the 7th. Williams appears to be involved, and they also have been put on the show cause order by FERC.

We were a little troubled by this NCPA document provided by Enron in that it's a transmission management proposal. Now, that's not a regular term of art in our industry. Transmission obviously allows you to carry power. The term of art for that is wheeling. It's common for a group of utilities like NCPA to have a wheeling contract with a third party, but they manage their own transmission.

This specifies what lines are involved. This specifies also a 50-50 split basis for the monthly profit. That's also very unusual in a wheeling contract. Wheeling contracts are almost always at a set fee. Those fees are set by the Federal Energy Regulatory Commission, usually based on cost.

We were also interested that at one point, apparently, in order to follow this through, they had

simply crossed off Williams and written in Enron, which leaves the possibility that NCPA was marketing their part in this scheme.

In most of the scheme, it's not at all clear that the individual counterparties understood the whole picture. Clearly, you could have, in fact, been buying

and selling power at Mead and not necessarily known everything that was happening at the Enron trading floor. However, in this case, it looks like one of the counterparties might have figured out their role in this and might have simply been renting that role to other parties, in this case Williams and Enron.

Now, I want to talk a little bit about the reliability issue. I made reference several times to the difference between money and electricity. The vantage point of the industry is the following. Money can be repaired. Eventually, a customer can get a refund. If there is a contract violation, a lawsuit can fix it.

Because electricity can't be stored outside of the northwest, and because it moves at the speed of light, when we have a major problem, the energy part is not fixable. In other words, we were turning off industries all up and down the West Coast during this period. We will never get that production back.

Two of our clients have just gone bankrupt. They're gone. That's the end of it. There never will be another paper mill sitting in Bellingham, Washington. These are not easily repaired outcomes, so this issue of the energy side is more important to us than the money side.

January 17th, as you remember, was a Stage 3 emergency. We had rolling blackouts in Northern California. The ISO invoked the Section 202 authority of the U.S. Department of Energy, the Secretary of Energy, to force utilities to trade up and down the West Coast at his direction.

At the end of that, no one on the West Coast has ever understood the numbers. We have never been able to figure out what the ISO said. We have never been able to corroborate it against operating data from outside the state. That doesn't mean the ISO is wrong, it means that the California system is too secretive, the data is not collected well. It is not available. When it is available, it's unconfidentiality, but we're left with huge gaps.

The Bonneville Power Administration, now that's the U.S. federal government, has maintained metering on the interties south to California since its inception. All of this is open data. You can get it right off the

Web site. You don't have to wait six months. We have a lot of belief in that data.

They metered 17,143 megawatt hours south to California on the 17th. We don't have comparable data from the ISO. There is some indication data has been lost. We do have the hourly schedule, now that should be close to actuality, but we don't know that it will be completely comparable.

But that indicates that California sent 9,975 megawatt hours north. There's a problem here. One of these two agencies has to be right. Either the Bonneville Power Administration is correct, the northwest was sending power to California, or, the California ISO was correct, that they were sending north, power north, the northwest. This is not a small amount of power. You could have served the city of Tacoma, a large city, with this power on that day, so what we're talking about is a situation where there's a major difference between the schedules and the flows.

20 Now, if you think about that, specifically the
 21 problem that these schemes imply; moreover, there's no
 22 way that the lines in the Northern California could have
 23 been congested, given the data we have. This chart
 24 shows the actual CACI flows, California AC intertie.

25 The blue line is the actual shipments from the
 0071

1 northwest to California. This chart by the way shows
 2 those as positive because this is a Bonneville Power
 3 chart. Their exports are positive numbers.

4 The green line is the capacity on that line.
 5 We never came anywhere near the capacity on that line on
 6 that day; therefore, we should have been able to have
 7 shipped power from Los Angeles, passed the congestion on
 8 Path 15 to Oregon and then shipped it back to Northern
 9 California to avoid the rolling blackouts.

10 Is this a rational and efficient step? No,
 11 it's an emergency step. You would not normally ship
 12 power to Oregon to get it back to California. Well,
 13 apparently a lot of people did that, but they were doing
 14 it to avoid -- to avoid price caps, but could it have
 15 been done? Should it have been done in emergency
 16 circumstances? Yes.

17 Why was it not done? There are only two
 18 reasons. One, the staff at the ISO made an operator
 19 error. I find that hard to believe. This is not rocket
 20 science. If they had a reason for not filing those
 21 schedules, it was because they had a reason to believe
 22 those schedules would not succeed.

23 It sounds, from what little information we have
 24 seen from them, that they thought there was congestion.
 25 Now, you will notice the yellow line in the red area.

0072
 1 Those are negatives. Throughout the entire period, the
 2 entire day, the ISO thought it was shipping power north
 3 out of its service territory to Oregon.

4 Now, considering the situation we're in, that's
 5 a very surprising set of numbers. How could that be?
 6 Well, again, we have seen more than enough here to
 7 indicate that traders could have scheduled different
 8 schedules in the COTP and the COI and taken advantage of
 9 the ISO computer programs at that point. They would not
 10 have been decongesting California, however, to make
 11 these numbers consistent, they would have had to be
 12 congesting California.

13 Why would they do that? Well, one simple
 14 reason, the emergency on the 17th led to prices in the
 15 thousands of dollars. You could make a lot more money
 16 in a Stage 3 emergency than you could have made if you
 17 had solved the problem. What evidence do we have?

18 This is our evidence, so my plea to the
 19 Committee is a very straightforward plea.

20 CHAIRMAN DUNN: Before you make your plea,
 21 we'll go back up to the front. We only take pleas from
 22 the dias.

23 THE WITNESS: Almost 18 months has passed since
 24 these emergencies. We are now in the summer of 2002.
 25 This is the winter of 2000, 2001. There is no possible

0073
 1 commercial reason for any of this data to be secret.
 2 There is an enormous economic reason for us to

3 understand the events of the winter of 2002 and 2001.

4 There is a critical operating reason for us to
 5 understand this, because a reasonable person armed with
 6 this data would question whether the blackouts were

necessary. Now, am I willing to be proved wrong?
 Absolutely. The point I'm making is, that I can't be
 proved wrong at the moment because no one knows the
 answer to this question.

And so my plea, and this is the only vested
 interest I represent today, which is a desire to get to
 the facts, is that the ISO be requested to turn over all
 of this data, the schedules, the flows and the bids for
 us to determine whether these Enron schemes or schemes
 by other parties were active during this period and they
 contributed to these Stage 3 emergencies.

And in the absence of that data, the new market
 design of the ISO is a prosperous experiment. I don't
 know what went wrong. I can't possibly guess what's
 going to fix it.

To conclude. We have a number of schemes that
 were designed to create imaginary schedules not matched
 by energy. The schemes, both in their scale and in
 their number, indicate the traders had the ability to

distort the ISO's transmission operations in the length
 and breadth of this state. The schemes included
 numerous counterparties from the northwest through
 California.

The ability of the protagonist to manipulate
 the ISO system opens the question whether critical
 operations in January were affected. And certainly the
 data from the Bonneville Power Administration make this
 a very immediate, very credible question.

And, finally, it's critical for us to get all
 of the data open, a year and a half has passed, no one's
 interests are at question except, perhaps, people who
 acted in bad faith.

Thank you very much.

CHAIRMAN DUNN: Mr. McCullough, thank you very
 much. I can assure you that whether or not that data
 that you referred to is embraced within the various
 document requests we have already submitted over the
 months to ISO, we will immediately in writing issue that
 request for the production of the material you have
 identified, Mr. McCullough. For myself, that will be
 done immediately.

Questions, comments. Senator Bowen, Senator
 Morrow.

SENATOR MORROW: Thank you, Mr. McCullough.

You have given us a -- I hardly know where to begin. I
 have a lot of questions and I'll save most of those for
 when we have some quality time together face to face
 privately, but one of the questions that jumps out right
 now, I'd like to ask you. In your conclusions in the
 third bullet point, you state that California utilities
 such as LADWP and NCPA appeared to have played an
 important role in all of this, and it appears that
 various transmission lines belonging to those utilities
 were used.

Could you maybe elaborate on that? Is this
 something that these transmission lines could have been
 used with or without the knowledge that they are being
 used in such a way consistent with Deathstar and -- and
 Red Congo and all these things?

THE WITNESS: From both your discovery and from
 FERC's comments and the affidavits, we have to believe
 that these were continuous abuses. And, if so, the
 operators at NCPA and LADWP must have had their

20 suspicions. We also know from PacifiCorp's comments
21 that they've quickly figured out something did not add
22 up and they took steps to remove themselves from this.
23 The NCPA proposal crossing one player's name
24 out for another I find very troublesome. That's in
25 spite of the fact that NCPA has an excellent reputation,

0076

1 many years of operation. But it is, simply put, their
2 name is rather prominent in this.

3 On the LADWP, we don't have anything nearly as
4 troublesome but, again, this is well-established,
5 well-respected utility. You can't get counter-scheduled
6 arrangements like this day after day and not begin to
7 doubt whether you are being invited into a scam, so I
8 think both of those two utilities will have some serious
9 questions to answer.

10 CHAIRMAN DUNN: Senator Bowen.

11 SENATOR BOWEN: I find myself similarly
12 situated to Senator Morrow. Yeah, it's really fairly
13 overwhelming. Who is PacifiCorp?

14 THE WITNESS: PacifiCorp is a large
15 investor-owned utility based in Portland, Oregon. They
16 have a small California service territory. They also
17 serve the states of Utah, Montana, Idaho and Washington.

18 SENATOR BOWEN: I guess the question at this
19 point is what would your recommendations be as to how
20 this Committee should proceed next, what questions would
21 you ask next? And I've got the one about release of the
22 data, got that message.

23 THE WITNESS: I made that same request to the
24 U.S. Senate in January and I -- I'm on the verge of
25 becoming an old bore on this, but democracy works best

0077

1 when checks and balances are in place. This Committee
2 has a special role to play.

3 It is not clear that the Federal Energy
4 Regulatory Commission has jurisdiction over publicly
5 owned utilities. Now, we know that that is a spirited
6 debate. The publicly owned utilities maintain that FERC
7 cannot order refunds and it apparently believes it can.

8 But it's clear that FERC's interests are going
9 to be directed at the IOUs. And it's not surprising to
10 me that FERC's show cause was all directed at
11 investor-owned utilities, so I think that there's a
12 straightforward area to ask those questions.

13 I don't think we're going to find that those
14 utilities are staffed by scoundrels. I have to say the
15 documents we had from Enron were not acceptable. In my
16 organization, Mr. Forney would have been fired
17 immediately, it would not have been a question, but I
18 think we are going to find that there needs to be some
19 checks and balances there as well.

20 SENATOR BOWEN: You know, one of the
21 difficulties that we have had as we try to establish
22 rules for an orderly marketplace is the fragmentation of
23 oversight. California -- the ISO has a limited amount
24 of -- a limited jurisdiction in what it can deal with.
25 The muni's about a third of the generation, a

0078

1 significant amount of the transmission. Some of the
2 parties here, PowerEx, PC Hydro, questionable whether
3 they are subject to the jurisdiction of any entity,
4 California or federal.

5 And I guess I'd like your thoughts on why we
6 didn't see these kinds of incidents happening before

7 AB 1890 was passed? We had the same fragmentation in
8 some respects. We had muni's. We had California-based
9 IOUs. We had out-of-state generators and we had power
10 supplies from out of the country, but we didn't see
11 Deathstar, Fat Boy.

12 THE WITNESS: This is a question that we've all
13 thought deeply about. As a young college professor, I
14 taught the classes that said that highways would work
15 better if we had congestion fees. The theory is that we
16 would hire more police who would rush off and find
17 people who were moving too slow and perhaps pay them to
18 leave the highway.

19 We now realize that if we had done that, we
20 would have also had to pay them to check that they were
21 not, in fact, old trucks owned by investment bankers
22 that just moved too slow in order to get paid to leave
23 the highway. We call that around our office the Beverly
24 Hillbillies effect. We have had a tremendous Beverly
25 Hillbillies effect here in California.

0079

1 We have gone from one of the best energy
2 systems in the world to an energy system that's
3 characterized by old trucks with grandma rocking the
4 rocking chair in back as they go down the freeway.

5 I think there are times, in fact, when even the
6 best social engineers take a step that we have to
7 question. I also question any attempt to centralize the
8 whole system. By the way, the California ISO responded
9 and Mr. Winter comments to the Senate that this might
10 have been a serious problem and, of course, it might be
11 important to get more of the transmission lines
12 centralized.

13 I've -- I feared that. I prefer a system in
14 which we have many players. I'm really not terribly
15 worried about ownership. We have clients who are both
16 public utilities and private utilities, but I have to
17 say the centralization, the very complex incentives, the
18 desire to have the -- you asked earlier about if I knew
19 who was on their various review committees.

20 We were trying to hire police to check the
21 people who were going too slow. I don't care if they
22 are brilliant college professors, as some of them are,
23 this is a very hard job.

24 And I think we may just, frankly, have created
25 a system too complicated for us to understand and

0080

1 administer. We had customer choice throughout the West
2 Coast before AB 1890. Some of our clients on the West
3 Coast have enjoyed customer choice for many, many years.
4 Large industrials, mainly, who had made their own
5 arrangements.

6 But we didn't have this complex overlay of
7 rules and regulations. We didn't have the
8 centralization. We didn't have rules that led to
9 amazing incentives. I mean, this was -- this especially
10 comes out of Perot Systems documents. We have
11 incentives that go the wrong way throughout that entire
12 document. I spent today's testimony working on just one
13 of the Enron schemes, and all of that was based on the
14 bad incentives given by just the congestion fee
15 mechanism.

16 And I apologize for making that such a long
17 answer, but I meant that as a leadup to the statement
18 that we had a better system based on simple bilateral
19 trading where the incentives matched directly back to

the missions of the parties involved.

And I think that there is a lot of historical evidence that collectivisation makes bad farms, and what we had here was collectivisation. And, sadly, FERC still likes that idea. They love these computer programs. They love these large, centralized systems.

We were active in PGM and ERCOT. ERCOT has a variety of problems.

The Texas PUC recently found that Enron had been doing a similar scheme in ERCOT. As we know, Texans do everything better. In this case they might simply have been victimized better, I don't know.

In PGM, which FERC regards as the best, we have various flaws. I can't explain to our clients long term prices in PGM any more than I can in California anymore, so the bottom line is that I think we are finding that simple bilateral relationships work better. I think we are finding that simple incentives work better.

Let me just close. The world's largest commodity market is the Chicago Board of Trade. It's found at the foot at LaSalle Street. Anyone can walk into the Chicago Board of Trade, by the way. You don't have to wait six months to find out what the prices were. There's a reason for that.

After a hundred years, the Chicago Board of Trade, we discovered that openness works very well. The Chicago Board of Trade, a whole bunch of very overpaid people are standing in pits screaming at each other. It's not because they can't afford computers and they don't have Ph.D.s in economics, I'm sure many of them do. It's because we found that the simple approach

works.

And the reason why we haven't issued them computers, FERC secrecy tariffs and complex incentive schemes is because we'd have a famine in Illinois. You managed to have a famine in California, so I think that the answer is that these mechanisms just haven't proven out.

CHAIRMAN DUNN: Other questions? Senator Bowen.

Well, let me wrap up with a few comments. It's been a disturbing morning. We'll wrap it up so it does not become a disturbing afternoon here.

I want to issue, first of all, a couple of thank yous before some concluding comments. First of all, thanks to Dennis Peyton, who is back, our court reporter, Dennis. Thank you for your services.

Stephanie, from Leg. Counsel, thank you for your services. Senate Services for securing the big screen TV as well. The staff of the Committee and my own staff appreciate all of the help along the way. We rarely take the opportunity, despite all of this hard work, to thank them for their day in and day out work.

Mr. McCullough, thank you very much for coming to California and testifying today. It was truly an honor to testify with you in Washington D.C., despite

the fact that Mr. Winter that afternoon decided to testify to something entirely different in another committee in Washington D.C., but I won't go into my comment on Mr. Winter's comments.

As you could tell, Mr. McCullough, at least from the Committee, if I can take the liberty to speak

on behalf of the Committee, there's a lot of your information we need to absorb and to understand.

I clearly will consult with Senator Morrow and follow his direction, as far as where we go from here, given the fact that your testimony today and the documents disclose some involvement from certain municipal electricity systems.

I suspect, however, that we will probably be inviting you back. We don't want to abuse you, but we will certainly work with you in that regard. And, again, deferring to Senator Morrow, certainly we give -- we will give those individuals who are -- whose names were raised in the testimony today an opportunity to respond, of course, but I will leave those decisions, of course, to Senator Morrow.

Unless there's further comments from the staff, I mean from the Committee or staff, we are adjourned.

(Proceedings adjourned at 12:10 p.m.)

STATE OF CALIFORNIA,)
) ss.
COUNTY OF SAN JOAQUIN.)

I, Dennis G. Peyton, Certified Shorthand Reporter of the State of California, do hereby certify: That on the date and time herein indicated the witness herein named appeared before me for the purpose of giving their testimony; that after the witness was sworn by me in all respects as required by law, I took down in shorthand notes the said witness' testimony and the proceedings had at the time of the giving of such testimony; that I thereafter transcribed my shorthand notes of such testimony by computer-aided transcription, the above and foregoing being a full, true and correct transcript of all proceedings had and testimony given.

Certified Shorthand Reporter No. 2934